uc3m Universidad Carlos III de Madrid

Information design and data visualization

Academic Year: (2022 / 2023) Review date: 04-07-2021

Department assigned to the subject: Communication and Media Studies Department

Coordinating teacher: YUNQUERA NIETO, JUAN

Type: Electives ECTS Credits: 3.0

Year: 1 Semester: 2

REQUIREMENTS (SUBJECTS THAT ARE ASSUMED TO BE KNOWN)

The subjects that are taught during the first semester of the master.

OBJECTIVES

COMPETENCES

Possess and understand basic knowledge that can provide an opportunity to be original in the development and/or application of ideas, often within a research context.

Students should be able to:

- Apply the acquired knowledge and solve problems in new or barely known environments within broader contexts (sometimes multidisciplinary) related to their area of ¿¿study.
- Assimilate knowledge and face the complexity of making judgments from information that, being this incomplete or limited, includes reflections on social and ethical responsibilities linked to the application of their knowledge and judgments.
- Posses the learning abilities that allow them to follow the course.
- Manage and solve problems in the new interactive digital environments.
- Innovate in the communicative environment within the digital context.
- Develop audiovisual narratives committed with human rights, equal opportunities for men and women, accessibility for people with functional disabilities and the promotion of a culture of peace and democratic values.
- Acquire theoretical knowledge about the audiovisual narrative as well as gain awareness of its impact and social influence.
- Integrate documentary narratives within the framework of communication strategies, implementing the product offline and online.
- Experiment with new interactive storytelling formats.
- Combine diverse technological tools for the design and execution of documentaries, emphasizing the accessibility component.
- Acquire legal knowledge to create and distribute content on the Internet.
- Apply to the documentary practice the deontological principles proper of the journalistic profession.

SPECIFIC COMPETENCES

Develop infographic designs that can be executed and understood according to the journalistic, advertising, marketing or entertainment purpose.

Facilitate the understanding of large amounts of information through new codes of visualization.

Acquire knowledge for the rational use of graphics according to the format (printed or digital and

multiplatform).

Manage the existing tools and applications (experimental, free or payment service) to provide interactivity to information.

Experiment with different designs and formats on ubiquitous displays within the "first mobile" strategy.

LEARNING OUTCOMES

- -Ability to implement audiovisual projects in the digital environment acknowledging the different stages of execution.
- -Ability to carry out comprehensive communicative plans with special regard to the new communication tools offered by the Internet.

DESCRIPTION OF CONTENTS: PROGRAMME

- The diffusion and distribution of a transmedia audiovisual project through different channels of communication and in different platforms.
- Innovative strategies of distribution in the commercial circuit in constant competition and renewal of formats.
- Design and architecture of the information for the different devices and transmission channels.
- Management of multimedia and animation tools for the execution of infographic designs and transmedia information productions.
- Development of free multimedia materials for the execution of academic and professional tasks.

LEARNING ACTIVITIES AND METHODOLOGY

INSTRUCTIVE ACTIVITIES

Lectures

Lectures with training activities

Team work

Individual work

Group seminars

TEACHING METHODOLOGIES

Lectures by the professor with support of interactive and audiovisual media, in which the main concepts of the course are developed and the bibliography is provided to complement the students' learning.

Critical evaluation of the texts recommended by the professor: press articles, reports, manuals and/or academic articles (either for later discussion or to broaden and reinforce the knowledge of the course)

Resolution of practical cases, problems, etc., considered by the teacher individually or in groups.

Presentation and discussion in class, under the moderation of the professor, of topics related to the content of the subject, as well as practical cases.

Elaboration of papers and reports individually or in groups.

TUTORIALS

Fixed tutorials established in the course.

Tutorials at the request of the student.

Tutorials proposed by the professor.

ASSESSMENT SYSTEM

Journalistic infographic designs: theory and real examples. Different levels of visual representation. Knowledge of the desktop publishing program ¿Indesign¿ for printed and digital productions.

Proposal of an Evaluation Exercise.

PRACTICE: Implementation of the outline on hard copy (paper sketch, web and video clip) and presentation of the exercise. (20%)

Main tool: Adobe Illustrator. Maps, bar charts, diagrams, etc. PRACTICE: Creation of a location map (by computer). (20%)

Presentation of the Evaluation Exercise to the class.

PRACTICE: Evaluation Exercise (with a computer, tutoring on how to face the project). (20%)

Introduction to the animated infographic design and non-linear interactivity. Adobe Edge Animate, HTML, etc.

PRACTICE: Making an interactive infographic design with free tools suitable for mobile devices. (20%)

Development of the concept and following design with the desktop publishing tool Indesign using graphic items and other textual information as a container of the tasks carried out.

PRACTICE: Preparing a mini-publication with the elements and the graphic resources of a printed or digital tool. (20%)

The total of the practice work is 100%. It represents 60% of the overall course.

% end-of-term-examination: 40 % of continuous assessment (assignments, laboratory, practicals...): 60

BASIC BIBLIOGRAPHY

- Alberto Cairo The Functional Art, New Riders, 2016
- David Dabner, Sandra Stewart, Eric Zempol. Diseño gráfico: Fundamentos y prácticas, BLUME, 2015
- Edward Tufte The Visual Display of Quantitative Information, GRAPHICS PRESS.
- Isabel Meirelles Design for Information, Rockport Publishers, 2013

ADDITIONAL BIBLIOGRAPHY

- Edward Tufte Envisioning Information clothbound. , GRAPHICS PRESS.
- Nigel Holmes Wordless Diagrams., Bloomsbury Publishing.
- Stephen Few Show Me the Numbers: Designing Tables and Graphs to Enlighten. , Analytics Press.